What is claimed is:

1. A substantially purified nucleic acid molecule that encodes a protein comprising the amino acid sequence of SEQ ID NO: 30.

2. The substantially purified nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 1.

3. A substantially purified nucleic acid molecule that specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 1 or its complement, wherein the nucleic acid molecule encodes a protein comprising the amino acid sequence of SEQ ID NO: 30.

4. The substantially purified nucleic acid molecule according to claim 3, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 1 or its complement under high stringency conditions.

5. The substantially purified nucleic acid molecule according to claim 3, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 1 or its complement under low stringency conditions.

6. A substantially purified nucleic acid molecule that encodes a protein comprising the amino acid sequence of SEQ ID NO: 31.

7. The substantially purified nucleic acid molecule of claim 6, wherein the nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2.

8. A substantially purified nucleic acid molecule that specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 2 or its complement, wherein the nucleic acid molecule encodes a protein comprising the amino acid sequence of SEQ ID NO: 31.

9. The substantially purified nucleic acid molecule according to claim 8, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 2 or its complement under high stringency conditions.

10. The substantially purified nucleic acid molecule according to claim 8, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 2 or its complement under low stringency conditions.

11. A substantially purified nucleic acid molecule that encodes a protein comprising the amino acid sequence of SEQ ID NO: 32.

12. The substantially purified nucleic acid molecule of claim 11, wherein the nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 3.

13. A substantially purified nucleic acid molecule that specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 3 or its complement, wherein the nucleic acid molecule encodes a protein comprising the amino acid sequence of SEQ ID NO: 32.

14. The substantially purified nucleic acid molecule according to claim 13, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 3 or its complement under high stringency conditions.

15. The substantially purified nucleic acid molecule according to claim 13, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 3 or its complement under low stringency conditions.

16. A substantially purified nucleic acid molecule that encodes a protein comprising the amino acid sequence of SEQ ID NO: 33.

17. The substantially purified nucleic acid molecule of claim 16, wherein the nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 4.

18. A substantially purified nucleic acid molecule that specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 4 or its complement, wherein the nucleic acid molecule encodes a protein comprising the amino acid sequence of SEQ ID NO: 33.

19. The substantially purified nucleic acid molecule according to claim 18, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 4 or its complement under high stringency conditions.

20. The substantially purified nucleic acid molecule according to claim 18, wherein said nucleic acid molecule specifically hybridizes to a nucleic acid sequence of SEQ ID NO: 4 or its complement under low stringency conditions.

21. A substantially purified nucleic acid molecule comprising a nucleic acid sequence which encodes a plant HES1 protein.

22. A substantially purified protein comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 30, 31, 32, and 33.

23. An antibody capable of specifically binding a protein with the amino acid sequence of SEQ ID NO: 30.

24. An antibody capable of specifically binding a protein with the amino acid sequence of SEQ ID NO: 33.

25. A plant having a nucleic acid molecule which comprises: (A) a promoter region which functions in a plant cell to cause the production of a mRNA molecule; (B) an exogenous structural nucleic acid molecule encoding a protein or fragment thereof comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 30, 31, 32, 33 and 34 and fragments thereof, and (C) a 3' non-translated sequence that functions in the plant cell to cause termination of transcription and addition of polyadenylated ribonucleotides to a 3' end of the mRNA molecule.

26. The plant according to claim 25, wherein said plant is selected from the group consisting of maize, canola, soybean, crambe, mustard, castor bean, peanut, sesame, cottonseed, linseed, safflower, oil palm, flax and sunflower.

27. The plant according to claim 25, wherein said plant exhibits increased phytosterol levels relative to a plant with a similar genetic background but lacking said exogenous structural nucleic acid molecule.

28. A transformed plant having a nucleic acid molecule which comprises: (A) an exogenous promoter region which functions in a plant cell to cause the production of a mRNA molecule; which is linked to (B) a transcribed nucleic acid molecule with a transcribed strand and a non-transcribed strand, wherein the transcribed strand is complementary to a nucleic acid molecule encoding a protein comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 30, 31, 32, 33 and 34; which is linked to (C) a 3' non-translated sequence that functions in plant cells to cause termination of transcription and addition of polyadenylated ribonucleotides to a 3' end of the mRNA molecule.

29. The transformed plant according to claim 28, wherein said plant is selected from the group consisting of maize, canola, soybean, crambe, mustard, castor bean, peanut, sesame, cottonseed, linseed, safflower, oil palm, flax and sunflower.

30. A plant having a nucleic acid molecule which comprises: (A) a promoter region which functions in a plant cell to cause the production of a mRNA molecule; (B) an exogenous structural nucleic acid molecule encoding a HES1 protein or fragment thereof, and (C) a 3' non-translated sequence that functions in the plant cell to cause termination of transcription and addition of polyadenylated ribonucleotides to a 3' end of the mRNA molecule.

31. The plant according to claim 30, wherein said plant is selected from the group consisting of maize, canola, soybean, crambe, mustard, castor bean, peanut, sesame, cottonseed, linseed, safflower, oil palm, flax and sunflower.

32. The plant according to claim 31, wherein said plant exhibits increased phytosterol levels relative to a plant with a similar genetic background but lacking said exogenous structural nucleic acid molecule.

33. The plant according to claim 31, wherein said HES1 protein has the amino acid sequence of a yeast HES1 protein.

34. The plant according to claim 31, wherein said HES1 protein has the amino acid sequence of a plant HES1 protein.

35. The plant according to claim 34, wherein said HES1 protein has the amino acid sequence of a maize or soybean HES1 protein

36. A method of producing a plant containing an expressed HES1 protein or fragment thereof in a plant comprising: (A) transforming the plant with a functional nucleic acid molecule, wherein the functional nucleic acid molecule comprises a promoter region, wherein the promoter region is linked to a structural region, wherein the structural region comprises a nucleic acid sequence that encodes a protein having an amino acid sequence selected from the group consisting of SEQ ID NOs: 30, 31, 32, 33 and 34, wherein the structural region is linked to a 3' non-translated sequence that functions in the plant to cause termination of transcription and addition of polyadenylated ribonucleotides to a 3' end of a mRNA molecule; and wherein the functional nucleic acid molecule results in overexpression of the protein; and (B) growing the transformed plant.

37. The method of producing a plant according to claim 36, wherein said plant is selected from the group of maize, canola, soybean, crambe, mustard, castor bean, peanut, sesame, cottonseed, linseed, safflower, oil palm, flax and sunflower.

38. The method of producing a plant according to claim 36, wherein said plant exhibits increased phytosterol levels relative to a plant with a similar genetic background but lacking said exogenous structural nucleic acid molecule.

39. A method of producing a plant containing an expressed HES1 protein or fragment thereof in a plant comprising: (A) transforming the plant with a functional nucleic acid molecule, wherein the functional nucleic acid molecule comprises a promoter region, wherein

the promoter region is linked to a structural region, wherein the structural region comprises a nucleic acid sequence that encodes a HES1 protein, wherein the structural region is linked to a 3' non-translated sequence that functions in the plant to cause termination of transcription and addition of polyadenylated ribonucleotides to a 3' end of a mRNA molecule; and wherein the functional nucleic acid molecule results in overexpression of the protein; and (B) growing the transformed plant.

40. The method of producing a plant according to claim 39, wherein said plant is selected from the group of maize, canola, soybean, crambe, mustard, castor bean, peanut, sesame, cottonseed, linseed, safflower, oil palm, flax and sunflower.

41. The method of producing a plant according to claim 40, wherein said plant exhibits increased phytosterol levels relative to a plant with a similar genetic background but lacking said exogenous structural nucleic acid molecule.

42. A method for reducing expression of a HES1 protein in a plant comprising: (A) transforming a plant with a nucleic acid molecule, said nucleic acid molecule having an exogenous promoter region which functions in plant cells to cause the production of a mRNA molecule, wherein said exogenous promoter region is linked to a transcribed nucleic acid molecule having a transcribed strand and a non-transcribed strand, wherein the transcribed strand is complementary to a nucleic acid molecule having a nucleic acid sequence selected from the group consisting of SEQ ID NOs:1-4, and 6-29 or complement thereof or fragment of either; and wherein the transcribed nucleic acid molecule is linked to a 3' non-translated sequence that functions in the plant cells to cause termination of transcription and addition of polyadenylated ribonucleotides to the 3' end of the mRNA sequence; and (B) growing said transformed plant.

43. A method for screening for increased phytosterol levels in a plant comprising interrogating genomic DNA for the presence or absence of a marker molecule that specifically hybridizes to a nucleic acid molecule having a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1-4 and 6-29 or complement thereof; and detecting said presence or absence of said marker.

44. A method for determining a genomic polymorphism in a plant that is predictive of an increased phytosterol levels comprising the steps: (A) incubating a marker nucleic acid molecule, under conditions permitting nucleic acid hybridization, and a complementary nucleic

acid molecule obtained from said plant, wherein said marker nucleic acid molecule specifically hybridizes to a nucleic acid molecule having a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1-4 and 6-29 or complement thereof; (B) permitting hybridization between said marker nucleic acid molecule and said complementary nucleic acid molecule obtained from said plant; and (C) detecting the presence of said polymorphism.

45. A method for determining a level or pattern of HES1 expression in a plant cell or plant tissue comprising: (A) incubating under conditions permitting nucleic acid hybridization: a marker nucleic acid molecule, said marker nucleic acid molecule having a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1-4 and 6-29 or complement thereof, with a complementary nucleic acid molecule obtained from a plant cell or plant tissue, wherein nucleic acid hybridization between said marker nucleic acid molecule, and said complementary nucleic acid molecule obtained from said plant cell or plant tissue permits the detection of said HES1 protein; (B) permitting hybridization between said marker nucleic acid molecule and said complementary nucleic acid molecule obtained from said plant cell or plant tissue; and (C) detecting the level or pattern of said complementary nucleic acid, wherein the detection of said complementary nucleic acid is predictive of the level or pattern of said HES1 protein.

46. A method for determining a level or pattern of a HES1 in a plant cell or plant tissue under evaluation which comprises assaying the concentration of a molecule, whose concentration is dependent upon the expression of a gene, said gene having a nucleic acid sequence which specifically hybridizes to a nucleic acid molecule having a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1-4 and 6-29 or complement thereof or fragment of either, said molecule being present in the plant cell or plant tissue, in comparison to the concentration of that molecule present in a plant cell or plant tissue with a known level or pattern of said HES1 protein, wherein the assayed concentration of said molecule is compared to the assayed concentration of said molecule in the plant cell or plant tissue with a known level or pattern of said HES1 protein.